STATE ENVIRONMENTAL POLICY ACT
ENVIRONMENTAL CHECKLIST FORMS

FOR

105-DR LARGE SODIUM FIRE FACILITY CLOSURE

REVISION 1

May, 1993

WASHINGTON ADMINISTRATIVE CODE
ENVIRONMENTAL CHECKLIST FORMS
[WAC 197-11-960]

A. BACKGROUND

1. Name of proposed project, if applicable:

Closure of the 105-DR Large Sodium Fire Facility (LSFF). Information contained in this State Environmental Policy Act (SEPA) Checklist pertains only to the portion of the Hanford Site 100-D area which contains the 105-DR LSFF. In the context of the document, "site" refers only to the area covered by the physical structure of the 105-DR LSFF and associated facilities discussed in the answer to Checklist Question A.11, whereas "Site" refers to the Hanford Site.

2. Name of applicants:

U.S. Department of Energy, Richland Operations Office (DOE-RL) and Westinghouse Hanford Company (Westinghouse Hanford).

3. Address and phone number of applicants and contact persons:

U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

Westinghouse Hanford Company
P.O. Box 1970
Richland, Washington 99352

Contact:

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(509) 376-5556

4. Date checklist prepared:

May 10, 1993

5. Agency requesting the checklist:

Washington State
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

6. Proposed timing or schedule: (including phasing, if applicable):

Final closure activities will be completed and certified in accordance with the closure plan. Soil and sediment sampling will be conducted during closure activities. If the sampling results indicate that clean closure is not possible, closure (decontamination) will be coordinated with decontamination of the 105-DR Reactor, which is located in the Resource conservation and Recovery Act (RCRA) Practice Operable Unit 100-DR-2. Decommissioning activities will be conducted in accordance

with the records of decision for the 100-DR-2 Operable Unit and for the Environmental Impact Statement (EIS), Decommissioning of Eight Surplus Production Reactors at the Hanford Site.

7. **Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.**

The LSFF is located within Operable Units 100-DR-2 (source) and 100-HR-3 (groundwater), as designated in the Hanford federal Facility Agreement and Consent Order (HFFACO). Clean closure is proposed, and once any dangerous waste associated with the LSFF is removed, the entire reactor will remain for future decontamination and decommissioning as discussed in the final surplus production reactor decommissioning EIS (DOE 1992: pp 1.7 - 1.13). Any remedial action with respect to either contaminants not associated with the LSFF, or associated with the LSFF not yet cleaned to action levels under this closure plan, will be deferred to the reactor decommissioning EIS record of decision or the RCRA facility Investigation/Corrective Measures Study (RFI/CMS) process.

8. **List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.**

This SEPA Checklist is being submitted to the Washington state Department of Ecology (Ecology) and the U.S. Environmental Protection agency (EPA) concurrently with the RCRA closure Plan for the 105-DR LSFF. The RCRA Part A and Part B permit applications were submitted to Ecology in November 1985. A revised Part A permit application was submitted to ecology in November 1987.

Final Environmental Impact Statement - *Decommissioning of Eight Surplus Production Reactors at the Hanford Site*, Richland, Washington DOE/EIS-0119D, U.S. Department of Energy, 1992, Washington, D.C.

General information concerning the Hanford Facility environment can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, December 1992. This document is updated annually by Pacific Northwest Laboratory, and provides current information concerning climate and meteorology; ecology; history and archeology; socioeconomic; land use and noise levels; and geology and hydrology. This baseline data for the Hanford Site and its past activities are useful for evaluating proposed activities and their potential environmental impacts.

9. **Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? if yes, explain.**

No applications to government agencies are known to be pending.

10. **List any government approvals or permits that will be needed for your proposal, if known.**

Ecology is the lead regulatory agency authorized to approve the closure plan for the 105-DR LSFF pursuant to the requirements of the Washington Administrative Code, (WAC) 173-303-610. The closure plan must also receive approval from the EPA. No other permits are known to be required at this time.

11. **Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page.**

The proposed project is the final closure of the 105-DR Large Sodium Fire Facility. Clean closure is proposed as the condition for final closure of the facility. Clean closure is contingent on verification that all wastes and contaminants are removed to accepted action levels and that all equipment, structures, liners, soils and/or other materials containing dangerous wastes or residues associated with the LSFF are removed from the site.

The facility consists of three fire rooms, a Sodium Handling Room, the Supply fan room, an exhaust gravel scrubber, and office space directly connected to the 105-DR Reactor.

All equipment and fixtures will be decontaminated, removed, and appropriately disposed of. The buildings and floors will be decontaminated to appropriate action levels with one or more of the following methods:

- Damp wipe downs
- Vacuum assisted mechanical removal
- Sandblasting
- High-pressure steam/water and suction

The buildings, floors, soil and gravel will be sampled to determine the levels of remaining contamination and the requirements for additional decontamination. Clean closure will be achieved when sampling shows that the remaining contamination is below acceptable action levels as defined in the closure plan. Eventually the concrete will be disposed of with the rest of the 105-DR reactor under the decommissioning program.

12. **Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The 105-DR LSFF is located in the northwest portion of the Hanford Site 100-D Area approximately 35 miles northwest of the city of Richland. The

105-DR LSFF is connected to the 105-DR Reactor. It is in the W 1/2, NW 1/4, section T14N, R26E. A location map and site plans are included in the closure plan.

TO BE COMPLETED BY APPLICANT

EVALUATIONS FOR AGENCY USE ONLY

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other_____.

Flat.

b. What is the steepest slope on the site (approximate percent slope)?

The approximate slope of the land is less than 2 percent.

c. What general types of soils are found on the site? (for example, clay, sandy gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Soil types consist mainly of eolian and fluvial sands and gravel. More detailed information concerning specific soil classifications can be found in the *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, December 1992. Farming is not permitted on the Hanford Facility.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

No filling or grading is required.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

No.

g. **About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**

Not applicable. No construction would occur.

h. **Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Not applicable. Earth would not be disturbed.

2. Air

a. **What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.**

Minor amounts of exhaust would be generated by vehicles used to gain access to the site. Small quantities of dust could be generated by decontamination and sampling activities.

b. **Are there any off-site sources of emissions or odors that may affect your proposal? If so, generally describe.**

No.

c. **Proposed measures to reduce or control emissions or other impacts to the air, if any?**

Good engineering practices would be followed, and actions would comply with onsite procedures designed to protect the environment and worker safety and health.

3. Water

a. Surface

1) **Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**

There is no surface water body on or in the immediate vicinity of the 105-DR LSFF. However, the Columbia River is approximately 0.75 mile (1.2 kilometer) away. No perennial streams originate within the Columbia Plateau.

2) **Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**

The work would not require any activity in or near the described waters.

3) **Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

None. There would be no dredging or filling.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**

The water supply for the 100-D Area is pumped from the Columbia River. The 105-DR LSFF closure activities would use insignificant amounts of this overall withdrawal.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

The 105-DR LSFF is not within the 100 year floodplain (*Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, December 1992).

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

No.

b. Ground

1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.**

No groundwater would be withdrawn in support of this project, and water would not be discharged to the aquifer.

2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

Sanitary waste from the 105-DR LSFF is discharged to the 105-D Area sanitary trench. Closure of the 105-DR LSFF will not impact the existing sanitary waste sewer system.

c. **Water Run-off (including storm water)**

1) **Describe the source of run-off (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**

The Hanford Facility receives only 6 to 7 inches (15.2 to 17.8 centimeters) of annual precipitation. Precipitation runs off the existing buildings and seeps into the soil on and near the buildings. This precipitation does not reach the groundwater or surface waters.

2) **Could waste materials enter ground or surface waters? If so, generally describe.**

Waste materials would not enter ground or surface waters. All waste materials would be contained.

d. **Proposed measures to reduce or control surface, ground, and run-off water impacts, if any:**

No surface, ground, or run-off water impacts are expected.

4. Plants

a. Check or circle the types of vegetation found on the site.

___ deciduous tree: alder, maple, aspen, other
___ evergreen tree: fir, cedar, pine, other
___ shrubs
_X_ grass
___ pasture
___ crop or grain
___ wet soil plants: cattail, buttercup, bulrush, skunk cabbage, other
___ water plants: water lily, eelgrass, milfoil, other
___ other types of vegetation

The most common vegetation community in the 100-D Area is the sagebrush/cheatgrass or Sandberg's bluegrass. Native vegetation in the immediate vicinity of the 105-DR LSFF has been eradicated.

b. What kind and amount of vegetation will be removed or altered?

No native vegetation alteration would occur.

c. List threatened or endangered species known to be on or near the site.

The 105-DR LSFF is located within a previously disturbed area that has been heavily industrialized since the mid 1940's, and biological survey personnel indicate that no sensitive species occur in the general vicinity.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Not applicable.

5. Animals

a. Indicate (by underlining) any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds,

other:.....
mammals: deer, bear, elk, beaver,
other:.....
fish: bass, salmon, trout, herring, shellfish,
other:.....

Raptors (burrowing owls, ferruginous, redtail, and Swainson's hawks) are rarely seen in the 100-D Area Area. Small passerines (sparrows, finches) are present in the general vicinity of the 105-DR LSFF. Rabbits and coyotes occasionally are seen in the general area.

b. List any threatened or endangered species known to be on or near the site.

Two federal and state listed threatened or endangered species have been identified on the Hanford Site along the Columbia River; the bald eagle and peregrine falcon. In addition, the state listed white pelican, sandhill crane, and ferruginous hawk also occur on or migrate through the Hanford Site. Of these five species, none is likely to use the shrub-steppe habitat of the 100-D Area.

c. Is the site part of a migration route? If so, explain.

The Hanford Site is a part of the broad Pacific Flyway.

d. Proposed measures to preserve or enhance wildlife, if any:

This project contains no specific measures to preserve or enhance wildlife.

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity is used at the 105-DR LSFF for heating, lighting, and other power needs.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Energy consumption is not anticipated to be significant, and energy conservation features are not easily applicable to the 105-DR LSFF closure.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Possible environmental health hazards to workers could arise from activities at the 105-DR LSFF. The hazard could come from exposure to dangerous, radioactive, and/or mixed waste. Stringent administrative controls and engineered barriers are employed to minimize the probability of even a minor incident and/or accident. A chemical spill, release, fire, or explosion could occur only as a result of a simultaneous breakdown in multiple barriers or a catastrophic natural forces event.

1) Describe special emergency services that might be required.

Hanford Site security, fire response, and ambulance services are on call at all times in the event of an onsite emergency. Hanford Site emergency services personnel are specially trained to manage a variety of circumstances involving chemical and/or radioactive constituents and situations.

2) Proposed measures to reduce or control environmental health hazards, if any:

All personnel are trained to follow proper procedures during the storage and treatment operations to minimize potential exposure. The 105-DR LSFF has systems for ventilation, fire protection, and alarm capability.

Chemical safety hazards would be mitigated by preventing direct contact with the residual chemical constituents. Protective clothing, appropriate training, and respiratory protection would be used by onsite personnel as necessary.

b. **Noise**

1) **What type of noise exists in the area which may affect your project (for example: traffic, equipment, operation, other)?**

Equipment noise in the vicinity, it is not expected to affect personnel at the 105-DR LSFF.

2) **What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.**

Noise from some operations (e.g., sand-blasting) is expected.

3) **Proposed measures to reduce or control noise impacts, if any:**

If Occupational Safety and Health Administration noise standards are exceeded, appropriate measures to protect workers would be employed.

8. **Land and Shoreline Use**

a. **What is the current use of the site and adjacent properties?**

The Hanford Site houses reactors, chemical separation systems, waste management facilities, and related facilities that have been used for the production of special nuclear materials. Other scientific and engineering programs are also carried out. Lands north and east of the Columbia River are public lands, including river lands, and wildlife preserves or are used for farming. Some lands contiguous to or surrounded by the Hanford Site are owned by the Bonneville Power Administration, or leased to the Washington

Public Power Supply System, or are owned by or leased to the state of Washington.

b. Has the site been used for agriculture? If so, describe.

No portion of the 100-D Area Area has been used for agricultural purposes since 1943, if ever.

c. Describe any structures on the site.

The facility consists of three fire rooms, a Sodium Handling Room, the Supply fan room, the gravel scrubber, and the office space directly connected to the 105-DR Reactor.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

The Hanford Site is zoned as an Unclassified Use (U) district by Benton County.

f. What is the current comprehensive plan designation of the site?

The 1985 Benton County Comprehensive Land Use Plan designates the Hanford Site as the "Hanford Reservation". Under this designation, land on the Hanford Site may be used for "activities nuclear in nature". Nonnuclear activities are authorized "if and when DOE approval for such activities is obtained".

g. If applicable, what is the current shoreline master program designation of the site?

Does not apply.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

The entire Hanford Site was designated a National Environmental Research Park in 1977, for use as an outdoor laboratory for ecological research. However, the 100-D Area is fenced and is a

previously disturbed industrial area with little or no environmental significance.

i. Approximately how many people would reside or work in the completed project?

Approximately 10 people would work at the 105-DR LSFF closure.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Does not apply.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

None.

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

No construction would take place.

b. What views in the immediate vicinity would be altered or obstructed?

None.

c. Proposed measures to reduce or control aesthetic impacts, if any:

None.

11. Light and Glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Not applicable.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

None.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any?

None.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

The White Bluffs road is considered eligible for the National Register of Historic Places. This road is about 5 miles (8 kilometers) from the 105-DR LSFF. Additional information concerning Hanford Site cultural resources can be found in *Hanford Site National Environmental Policy Act (NEPA) Characterization*, PNL-6415, Revision 5, December 1992.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

There are no known landmarks or evidence of historic, archaeological, scientific, or cultural importance at the 105-DR LSFF.

c. Proposed measures to reduce or control impacts, if any:

Where appropriate, a cultural resource review would provide the vehicle for necessary approvals required under the *National Historic Preservation Act of 1966*.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Not applicable to the proposed project.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

The 105-DR LSFF is not accessible to the public and is not served by public transit.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Not applicable to the proposed project.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Traffic and parking would not change from existing traffic patterns.

g. Proposed measures to reduce or control transportation impacts, if any:

Not necessary.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Not applicable to the proposed project.

b. Proposed measures to reduce or control direct impacts on public services, if any:

Not applicable to the proposed project.

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other:

Electricity, potable water, steam, refuse service, telephone, and a septic system are available in the 100-D Area.

b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

No new utilities proposed. No construction.

SIGNATURES

The above answers are true and complete to the best of my knowledge. We understand that the lead agency is relying on them to make its decision.

James E. Rasmussen

8/24/93

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6-22-93

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